

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for providing information in a mobile communication system comprising a router configured to be connected to a ~~predetermined~~ network, and the router configured to communicate with a plurality of communication apparatuses which ~~can~~ are configured to communicate with mobile terminals ~~and are connected to the router~~, in order to provide ~~the information on~~ from the ~~predetermined~~ network to the mobile terminals, ~~wherein~~ the method comprising the steps of:

~~the router obtains~~ obtaining the information addressed to a particular mobile terminal from the ~~predetermined~~ information from the network to the router; ~~and transfers this obtained information from the predetermined network to all of the communication apparatuses connected to the router; and~~

transferring the information addressed to a particular mobile from the router to all of the communication apparatuses connected to the router;

receiving the information addressed to a particular mobile at each of the communication apparatuses ~~receives the information from the predetermined network from the router;[[,]] and transmits this received information from the predetermined network to a service area of its own provided by the communication apparatus~~

transmitting the information addressed to a particular mobile from each of the communication apparatuses to a corresponding service area of each of the communication apparatuses.

Claim 2 (Currently Amended): The method for providing information as claimed in claim 1, ~~wherein~~ the method further comprising the steps of:

~~upon receiving registering, when each of the communication apparatuses receives a~~
location registration request from ~~the a registering~~ mobile terminal located in the
~~corresponding~~ service area of its own, ~~each of the communication apparatuses registers~~
information relating to the ~~registering~~ mobile terminal originating the request into a
~~corresponding~~ located terminal table of its own held and used for managing the mobile
terminals located in the ~~corresponding~~ service area of its own ~~provided by the communication~~
apparatus;

~~determining at~~ each of the communication apparatuses ~~determines whether or not~~
information relating to a destination mobile terminal of the received information from the
~~predetermined~~ network is included in the ~~corresponding~~ located terminal table of its own; ~~and~~

~~transmitting, when it is determined at~~ the communication apparatus ~~determines that~~
the information relating to the destination mobile terminal is included in the ~~corresponding~~
located terminal table of its own, ~~each of the communication apparatuses transmits the~~
received information ~~on from~~ the ~~predetermined~~ network, ~~from the communication apparatus~~
to the destination mobile terminal; ~~and~~

~~when the communication apparatus determines that the information relating to the~~
~~destination mobile terminal is not included in the located terminal table of its own, each of~~
~~the communication apparatuses does not transmit the received information on the~~
~~predetermined network to the destination mobile terminal.~~

Claim 3 (Currently Amended): The method for providing information as claimed in
claim 2, ~~wherein the method further comprising the steps of:~~

~~setting up at~~ each of the communication apparatuses ~~sets up a delete time for the~~
information relating to the mobile terminal registered in the ~~corresponding~~ located terminal
table of its own;

updating at each of the communication apparatuses ~~updates~~ the delete time each time the location registration request is received from the ~~same~~ registering mobile terminal after the information relating to ~~that the registering~~ mobile terminal is registered in the corresponding located terminal table ~~of its own~~; and

deleting at each of the communication apparatuses ~~deletes~~ the information relating to the mobile terminal corresponding to the delete time from the corresponding located terminal table ~~of its own~~ when current time reaches the delete time.

Claim 4 (Currently Amended) The method for providing information as claimed in claim 2, ~~wherein~~ the method further comprising the step of:

deleting, when each of the communication apparatuses receives a request for deleting the information relating to ~~the~~ a moving mobile terminal that has moved out from the corresponding service area ~~of its own provided by the communication apparatus~~, at each of the communication apparatuses, ~~deletes~~ the information relating to the mobile terminal from the corresponding located terminal table ~~of its own~~ in response to the deleting request.

Claim 5 (Currently Amended): A mobile communication system comprising a router configured to be connected to a ~~predetermined~~ network, and the router configured to communicate with a plurality of communication apparatuses which ~~can~~ are configured to communicate with mobile terminals ~~and are connected to the router~~, the router comprising:

an information obtaining part ~~for obtaining~~ which obtains information ~~on from~~ the ~~predetermined~~ network, which is information addressed to a particular mobile terminal; and

an information transfer part ~~for transferring~~ which transfers the information ~~on the~~ ~~predetermined network~~ addressed to a particular mobile terminal obtained by the information

obtaining part to all of the communication apparatuses, and each of the communication apparatuses comprising:

an information receiving part ~~for receiving~~which receives the information ~~from the predetermined network~~addressed to a particular mobile terminal, from the router; and

an information communicating part ~~for transmitting~~which transmits the information ~~on the predetermined network~~addressed to a particular mobile terminal, received from the information receiving part to a corresponding service area ~~of its own provided by the communication apparatus~~of each of the communication apparatuses.

Claim 6 (Currently Amended): The mobile communication system as claimed in claim 5, each of the communication apparatuses further comprising:

an information registration part ~~for registering~~which registers the information relating to ~~the~~a mobile terminal originating ~~the~~a location registration request into a located terminal table held and used for managing the mobile terminals located in the corresponding service area ~~of its own provided by the communication apparatus~~, when the communication apparatus receives ~~a~~the location registration request from the registering mobile terminal located in the corresponding service area ~~of its own~~; and

an information presence determining part ~~for determining~~which determines whether or not the information relating to a destination mobile terminal of the information ~~on~~from the ~~predetermined~~ network received by the information receiving part is included in the located terminal table, wherein:

when the information presence determining part determines that the information relating to the destination mobile terminal is included in the located terminal table, the information communicating part transmits the information relating to a destination mobile terminal from the ~~predetermined~~ network to the destination mobile terminal; and

when the information presence determining part determines that the information relating to the destination mobile terminal is not included in the located terminal table, the information communicating part does not transmit the information relating to a destination mobile terminal from the ~~predetermined~~ network to the destination mobile terminal.

Claim 7 (Currently Amended): The mobile communication system as claimed in claim 6, each of the communication apparatuses further comprising:

a delete time setup part ~~for setting up~~ which sets up a delete time for the information relating to the mobile terminal registered in the located terminal table by the information registration part;

a delete time update part ~~for updating~~ which updates the delete time each time the location registration is requested by the registering mobile terminal after the information relating to the mobile terminal is registered in the located terminal table by the information registration part; and

a first information delete part ~~for deleting~~ which deletes the information relating to the mobile terminal corresponding to the delete time from the located terminal table when current time reaches the delete time.

Claim 8 (Currently Amended): The mobile communication system as claimed in claim 6, each of the communication apparatuses further comprising a second information delete part, wherein:

when each of the communication apparatuses receives a request for deleting the information relating to ~~the~~ a moving mobile terminal that has moved out from the corresponding service area ~~of its own provided by the communication apparatus~~, the second

information delete part deletes the information relating to the moving mobile terminal from the located terminal table in response to the deleting request.

Claim 9 (Currently Amended): A communication apparatus for transmitting information ~~on~~ from a ~~predetermined~~ network to a plurality of mobile terminals in a mobile communication system, comprising:

an information communicating part which communicates information addressed to a particular mobile whether or not the particular mobile is in a corresponding service area of the communication apparatus;

an information registration part ~~for registering~~ which registers the information relating to a ~~requesting~~ registering mobile terminal into a corresponding located terminal table ~~of its own~~ held and used for managing the mobile terminals located in a corresponding service area ~~of its own provided by the communication apparatus~~ when the communication apparatus receives a location registration request from the requesting mobile terminal located in the corresponding service area ~~of its own~~;

an information presence determining part ~~for determining~~ which determines whether or not the information relating to a destination mobile terminal of the information from the ~~predetermined~~ network received by the information ~~receiving~~ communicating part is included in the corresponding located terminal table ~~of its own~~; and wherein said

an information communicating part ~~for transmitting~~ transmits the information relating to a destination mobile terminal from the ~~predetermined~~ network to the destination mobile terminal, when the information presence determining part determines that the information relating to the destination mobile terminal is included in the corresponding located terminal table ~~of its own~~, and ~~for does not transmitting~~ transmits the information relating to a destination mobile terminal from the ~~predetermined~~ network to the destination mobile

terminal, when the information presence determining part determines that the information relating to the destination mobile terminal is not included in the corresponding located terminal table of its own.

Claim 10 (Currently Amended): The communication apparatus as claimed in claim 9, further comprising:

a delete time setup part ~~for setting up~~ which sets up a delete time for the information relating to the mobile terminal registered in the corresponding located terminal table of its own by the information registration part;

a delete time update part ~~for updating~~ which updates the delete time each time the location registration is requested by the registering mobile terminal after the information relating to the mobile terminal is registered in the corresponding located terminal table of its own by the information registration part; and

a first information delete part ~~for deleting~~ which deletes the information relating to the mobile terminal corresponding to the delete time from the corresponding located terminal table of its own when current time reaches the delete time.

Claim 11 (Currently Amended): The communication apparatus as claimed in claim 10, further comprising a second information delete part, wherein:

when ~~each of the communication apparatuses~~ apparatus receives a request for deleting the information relating to the mobile terminal that has moved out from corresponding the service area of its own ~~provided by the communication apparatus~~, the second information delete part deletes the information relating to the mobile terminal from the corresponding located terminal table of its own in response to the deleting request.